

PERCEPTION OF THE IMPORTANCE OF PROJECT COMPETENCIES IN LOCAL AND REGIONAL SELF-GOVERNMENT UNITS: AN EMPIRICAL STUDY WITH A RELEVANT SAMPLE FROM PODRAVINA REGION

PERCEPCIJA VAŽNOSTI PROJEKTNIH KOMPETENCIJA U JEDINICAMA LOKALNE I REGIONALNE SAMOUPRAVE: EMPIRIJSKO ISTRAŽIVANJE S RELEVATNIM UZORKOM IZ PODRAVSKE REGIJE

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SUMMARY

This research examines the perception of the importance of project competencies among employees in local and regional self-government units (LRSGUs), with a particular focus on the distinction between practical experience and theoretical knowledge within the framework of technical, contextual, and behavioral project competencies. In light of the growing need for effective management of development projects, especially those funded by the European Union, the study aims to fill a knowledge gap regarding how LRSGUs evaluate the project competencies of their employees. The theoretical framework is based on contemporary models and standards of project competencies, in line with relevant academic and professional literature, as well as guidelines from leading global organizations in project management, which generally classify competencies into three main categories. In addition to secondary research, primary quantitative research was conducted using a standardized survey questionnaire on a sample of employees from various LRSGUs, including a relevant organizations from the Podravina region, specifically the counties of Varaždin, Međimurje, Koprivnica-Križevci, Virovitica-Podravina, and Osijek-Baranja. Data were analyzed using descriptive and inferential statistical methods. The findings indicate that LRSGUs recognize the high importance of project competencies among their employees, generally assigning greater value

to practical experience than to formal knowledge. The results can contribute to the development of more effective human resource and education policies in public administration, as well as to strengthening human capital development strategies at the local and regional levels. Furthermore, the study provides a basis for formulating recommendations aimed at enhancing the institutional capacities of LRSGUs for implementing development projects in Croatia, which also includes the Podravina region, while also offering guidance relevant to the broader regional context of countries in the Drava region, such as Hungary and Slovenia.

Keywords: project management, project competencies, public administration, local and regional self-government, development projects, Podravina region

Ključne riječi: projektni menadžment, projektne kompetencije, javna uprava, lokalna i regionalna samouprava, razvojni projekti, podravska regija

INTRODUCTION

In the past decade, local and regional self-government units (LRSGUs) in the Republic of Croatia, including those from the Podravina region, have been facing growing challenges related to the planning, preparation, and implementation of development projects, particularly those financed by European Union funds (Držaić and Šoltić, 2025; Mrvica Mađarac et al., 2024). The increased availability of EU funding has opened up new development opportunities but has also placed additional emphasis on the need for effective management capacities at the local and regional levels. Currently, there are 576 local and regional self-government units operating in Croatia: 20 counties, the City of Zagreb (which holds the status of both a city and a county and is counted as one), 127 cities, and 428 municipalities (Ministry of Justice and Public Administration, 2025). This numerical and structural diversity, along with territorial and administrative differences, further complicates project coordination and management, increasing the need for a strategic and professional approach. In this context, effective project management becomes one of the key factors for achieving sustainable development, strengthening institutional capacity, and ensuring better utilization of available resources (Krpan et al., 2023).

Nevertheless, despite the growing intensity of project-related activities, there remains a lack of systematic research in academic and professional literature on which types of knowledge and experience are most valued in practice when it comes to project competencies of individuals involved in LRSGU project work. In other words, it is still unclear how significant project competencies are to LRSGUs and whether more value is placed on practical experience gained through work on real projects or theoretical knowledge acquired through education and professional development. This information gap hinders the design of effective educational programs and human resource policies within LRSGUs that would be aligned with the actual needs of the system. Consequently, it also impairs the formation of stable and competent project teams within these units, potentially leading to long-term negative effects on the realization of development potentials at both the local and regional levels (Car-Pušić et al., 2019).

For these reasons, the subject of this research paper is the examination of the importance of project competencies among employees of LRSGUs in Croatia, including those from the Podravina region, with a focus on their perception in the context of implementing development projects. Special attention is given to the distinction between the value of practical experience versus theoretical knowledge across three key groups of competencies: technical, contextual, and behavioral. The main goal of this study is to investigate how LRSGUs perceive the importance of their employees' project competencies, particularly the differences in valuing practical experience compared to theoretical knowledge within the aforementioned three competency categories. The purpose of the research is to provide empirically grounded insights that can contribute to the development of strategic policies aimed at strengthening public administration capacity through targeted employee development programs and human resource management strategies. Moreover, the findings will support more effective implementation of development projects, especially those financed by national and EU funds, and can also be applicable to other EU member states and candidate countries in the process of EU accession.

Based on the defined aim and purpose of the research, the following hypotheses have been formulated:

H1: Local and regional self-government units perceive the development of employees' project competencies as a highly important component for the successful implementation of development projects.

This hypothesis assumes that LRSGUs are aware of the importance of employee project competencies and consider them crucial for achieving strategic goals.

H2: Local and regional self-government units assign greater importance to employees' practical experience than to their theoretical knowledge in the field of project competencies.

Hypothesis H2 arises from the assumption that, in practice, LRSGUs particularly value practical experience gained through direct project work, considering it essential for the effective management of complex projects.

Following the introductory chapter, the paper continues with a review of relevant academic and professional literature, including an analysis of theoretical frameworks and previous research related to project competencies and development projects in LRSGUs. The methodology section will describe the methods and instruments used for data collection, including the definition of the sample and approaches to statistical analysis. The results section will present the key findings, accompanied by detailed data analysis. The discussion will interpret the results obtained and consider their practical implications. Finally, the conclusion will summarize the paper's contributions and offer recommendations for future research and practical application.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Project management (PM) is defined as the application of knowledge, skills, tools, and techniques to project activities in order to achieve set objectives (PMI, 2021). In the context of the public sector, particularly within local and regional self-government units (LRSGUs), project management presents several specific challenges: implementation within complex administrative frameworks, a heightened need for transparency, the intricacies of inter-institutional coordination, and the requirements of financing from external sources, especially European Union funds (Car-Pušić et al., 2019). Within this framework, structured project management becomes crucial for achieving sustainable and efficiently governed local and regional development.

The use of formal PM methodologies and frameworks enables systematic planning and control, reduced project risk, greater transparency, and better alignment of activities with local development strategies (Krupan et al., 2023). However, the implementation of development projects within LRSGUs is often limited by a lack of administrative and technical capacities, insufficient specialized knowledge among employees, and weak coordination between administrative bodies and partners (World Bank, 2023; Vukašina, 2025). Challenges related to the absorption of EU funds are especially pronounced, where the lack of professional project competencies has proven to be one of the keys limiting factors (European Parliament, 2023). The development of project management competencies is based on a combination of theoretical knowledge and practical experience. Theoretical knowledge provides an understanding of methods, processes, and rules, while practical experience ensures their effective application in real-life local government contexts. Numerous studies have confirmed the importance of maintaining this balance. For example, Irfan et al. (2021) demonstrated that planning and project managers' competencies in the public sector significantly impact project success, with planning having an even stronger influence. Dias et al. (2023) identified emotional intelligence, motivation, and trust as critical success factors, while also warning that many years of experience without ongoing development may negatively affect project outcomes. Ahmed and Lodhi (2021), in their study of the public sector, emphasized the importance of emotional leadership and communication competencies. Research in the Central European context by Blaskovics et al. (2023) showed that the public sector values strategic and procedural skills more, while the private sector leans toward customer orientation and flexibility. In the European context, the OECD (2021) underscores the need to strengthen human resource management systems in public administration and to integrate competency development into broader public sector reforms. Similarly, the European Commission's EFISC framework highlights the importance of devel-

oping interoperable and multidimensional competencies that enable effective cooperation and integration within complex public administration systems (EC, 2021). Earlier studies, such as that of Turner and Müller (2005), observed that “the literature on project success factors largely overlooks the project manager—their leadership style and competencies—as key determinants of project success,” which contrasts with managerial literature that sees appropriate leadership styles as conducive to better performance. All these insights point to the fact that building and continuously strengthening project competencies in public administration is essential for achieving organizational agility, successful adaptation to change, and the effective realization of development goals. In the Croatian context, Krpan et al. (2023) analyzed the benefits of structured project management approaches in counties and cities but did not focus on individual perceptions and employee competencies. Car-Pušić et al. (2019) proposed agile organizational models, but did not clearly investigate the relationship between theoretical knowledge and practical experience. Additionally, Barilović et al. (2021) conducted research on the potential for developing behavioral project competencies and the advantages for performing technical tasks across various types of project teams, but not specifically within the context of LRSGUs in Croatia.

An added value of this research lies in the fact that a systematic analysis of project competencies in Croatian local and regional self-government units (LRSGUs), particularly in relation to employee perceptions, has not yet been conducted. This opens the space for research into the perceived importance of different types of knowledge and experience across the elements of project competencies, the extent to which theoretical knowledge is valued in comparison to experiential learning, and how such perceptions influence the successful implementation of projects. In addition to contributing to theoretical discussions, the findings of this research can serve as a foundation for formulating recommendations aimed at strengthening human resource development policies in public administration, designing targeted educational programs, and developing professional training strategies. The quality of educational programs in this field significantly contributes to the enhancement of project competencies among participants, something supported by findings from studies conducted by Barilović et al. (2013, 2014) in the Croatian context. This can directly contribute to strengthening the capacities of LRSGUs in Croatia for implementing development projects, with the goal of more efficient absorption of funds, enhancing institutional resilience, and achieving long-term strategic objectives.

In pursuit of the professionalization of project management, numerous international professional organizations continually develop standards and competency frameworks, which form the basis of their certification systems used to assess individuals’ competencies for work in project management. In this research, alongside a review of relevant academic literature, several leading international approaches and standards were integrated as the analytical foundation, particularly those developed by the International Project Management Association (IPMA) and the Project Management Institute (PMI). Key concepts incorporated include the PMI Talent Triangle and IPMA’s Individual Competence Baseline ICB 4.0 (IPMA, 2015). Additionally, the APM Competence Framework (2023), developed by the UK’s Association for Project Management, and the guidelines provided by the Global Alliance for the Project Professions (GAPPS) framework were examined. The GAPPS framework is particularly useful for international benchmarking and the alignment of professional standards, educational programs, and employment practices in the field of project management.

The PMI Talent Triangle comprises three key areas of development (PMI, 2022):

- Ways of Working – knowledge of project management methodologies and tools, including traditional, agile, and hybrid approaches.
- Power Skills – interpersonal skills such as communication, teamwork, emotional intelligence, negotiation, and leadership.
- Business Acumen – understanding the business and strategic context of projects, data-driven decision-making, and financial literacy.

This categorization supports the comprehensive development of project competencies, highly relevant in complex project environments such as those found in LRSGUs.

The IPMA Individual Competence Baseline (ICB 4.0) is one of the most detailed models, in which competencies are also divided into three main categories, each with its respective elements (IPMA, 2015):

- Perspective – understanding organizational, strategic, and institutional factors.
- People – interpersonal and social skills.
- Practice – methodological and operational (technical) knowledge and skills for managing projects.

IPMA emphasizes the importance of balance between personal capability, institutional awareness, and technical expertise, especially in sectors responsible for managing public goods and complex processes, such as local and regional self-government units.

For the purposes of this research, an integrated competency framework is applied, combining the guidelines of the aforementioned leading global organizations in the field of project management, particularly those of IPMA and PMI. Within this framework, three core dimensions of project competencies are identified: technical, contextual, and behavioral. Each of these dimensions includes its own set of associated elements. Technical competencies encompass operational knowledge and skills such as time management, budgeting, quality control, risk management, project scope management, and similar areas. These competencies enable the professionalization and standardization of project implementation, ensuring efficiency and control (IPMA, 2015; PMI, 2022; APM, 2023). Contextual competencies refer to the ability to operate within institutional and legislative frameworks. In the context of Croatian LRSGUs, this includes, for example, knowledge of public procurement, EU funds, legal regulations, and strategic documents. These competencies are particularly important for local projects operating within a multi-level governance system (Car-Pušić et al., 2019; IPMA, 2015). Behavioral competencies relate to interpersonal skills such as communication, leadership, teamwork, emotional intelligence, and negotiation. These often make a critical difference in project execution, as project dynamics unfold not only through processes but also through human interactions (Dias et al., 2023; Ahmed & Lodhi, 2021; PMI, 2022; IPMA, 2015). This three-dimensional approach to project competencies allows for a comprehensive analysis of employee readiness to manage projects within the complex institutional and societal environment in which LRSGUs operate. The structure aligns with modern international guidelines and supports targeted development of public administration resource and education policies. These three groups of project competencies, with their respective elements, together enable a holistic and balanced understanding of the professional capabilities required for project implementation in the complex environment of public administration. Each aspect, technical, contextual, and behavioral, plays a vital role in achieving overall project success (see Table 1).

METHODOLOGY

This research employs a mixed-method approach, integrating an analytical review of relevant academic and professional literature (secondary research) with a quantitative survey (primary research), thereby enabling the integration of theoretical insights with empirical analysis of the actual state of project competencies in local and regional self-government units (LRSGUs). To establish the theoretical framework and research design, secondary research was conducted, based on an analysis of academic and professional literature sourced from relevant scientific databases and publications. A range of scientific methods was applied to enable the structured collection, processing, and interpretation of theoretical insights.

Inductive and deductive methods were used to generate and test theoretical assumptions related to project management competencies. Analytical and synthetic methods facilitated the breakdown of complex theoretical constructs and their recomposition into a coherent whole. Abstraction and generalization enabled the identification of essential characteristics of theoretical phenomena and their application at a broader conceptual level. Classification and specialization methods were applied to categorize competencies based on content and functional criteria. Descriptive and compilation methods served to gather, describe, and integrate existing perspectives, research findings, and models in the field of project management. Finally, the comparative method was used to analyze and contrast different theoretical

Table 1. Project Competencies (Technical, Behavioral, Contextual) with Corresponding Elements

Technical competencies	Behavioral competencies	Contextual competencies
t01 Aspiration for project management success	b01 Leadership (guiding and motivating others in their tasks)	c01 Project orientation (ability to successfully design and manage a project in various situations)
t02 Identifying project stakeholders	b02 Engagement and motivation of project participants	c02 Program orientation (ability to successfully manage multiple interrelated projects)
t03 Managing project requirements and objectives	b03 Self-control (handling daily tasks, demands, and stress)	c03 Portfolio orientation (ability to successfully manage projects and programs within an organization)
t04 Identifying and overcoming project risks and opportunities	b04 Assertiveness (ability to express one's views convincingly and authoritatively)	c04 Successful implementation of significant improvements in project, program, and portfolio management
t05 Managing project quality	b05 Relaxation (ability to release tension in difficult situations)	c05 Managing relationships between permanent and project-based parts of the organization
t06 Defining and maintaining the project organization	b06 Openness (making others feel welcome in the project)	c06 Directing the development of project management processes in accordance with business demands
t07 Project team management and leadership	b07 Creativity (ability to act in an original and imaginative way)	c07 successful management of projects related to system, product, and/or technology development or implementation
t08 Defining work tasks and solving project problems	b08 Results orientation (focusing the team's attention on key objectives)	c08 Managing human resources related to projects
t09 Coordination of various project structures	b09 Efficiency (ability to use time and resources appropriately)	c09 Directing the development of organizational standards related to health, insurance, safety, and the environment
t10 Defining project scope and deliverables	b10 Consultation (ability to persuade, argue, and listen to others' viewpoints)	c10 Establishing connections between the project environment and organizational, financial, and legal environments
t11 Defining project schedule and phases	b11 Negotiation (ability to resolve project-related disagreements)	c11 Aligning the project and business with legal processes
t12 Planning, identifying, and allocating project resources	b12 Conflicts and crises (ability to successfully deal with conflicts and crises)	
t13 Managing project costs and financing	b13 Reliability (ability to deliver what was agreed on time and according to quality and project specifications)	
t14 Identifying and defining procurement, and managing project contracts	b14 Respect for values (ability to recognize the unique qualities of others and understand their opinions)	
t15 Monitoring and managing project changes	b.15. Ethics (morally acceptable behavior of every individual)	
t16 Establishing project reporting and control systems		
t17 Managing project information and documentation		
t18 Ensuring effective communication within the project		
t19 Initiating the project		
t20 Closing the project		

Source: compiled by the author

models and approaches to competencies, identifying key similarities, differences, and practical implications for further empirical analysis.

A structured survey questionnaire was distributed to all cities and counties in the Republic of Croatia. A total of 46 completed questionnaires were collected from cities and counties, representing 31 % of the total observed population of LRSGUs, with responses provided by all counties from the Podravina region (Varaždin, Međimurje, Koprivnica-Križevci, Virovitica-Podravina, and Osijek-Baranja).

This sample is considered relevant for the purposes of this research. Municipalities were excluded from the study due to relevance concerns, as they often lack specialized organizational units for project management and the capacity to implement complex development projects. As a result, they frequently rely on external consultants for project implementation. Their exclusion allowed for a simpler and more representative sample, focused on the actual carriers of developmentally significant projects.

The survey questionnaire was designed to assess three groups of project competencies: technical, behavioral, and contextual. Each identified key element within these groups was evaluated from two perspectives: the importance of knowledge (marked with the suffix *_k*) and the importance of practical experience (marked with the suffix *_e*). Respondents rated each element on a Likert scale from 1 to 5, where 1 indicated “not important at all,” and 5 indicated “extremely important.” Each competency was labeled with a code indicating its group and sequence. Technical competencies were coded from *t01_k* to *t20_k*, behavioral competencies from *b01_k* to *b15_k*, and contextual competencies from *c01_k* to *c11_k*. The corresponding codes for evaluating the importance of experience were marked with the suffix *_e* (e.g., *t01_e*, *b01_e*, *c01_e*). This approach enabled a detailed and comparable analysis of the perceived importance of knowledge versus experience for each competency element within the three groups. The analysis of the collected data was conducted using Stata statistical software, employing quantitative methods suited to the research objectives and the testing of the proposed hypotheses.

For descriptive analysis, mean values and standard deviations were calculated for each individual competency element, providing a basic overview of the perceived importance of competencies within the analyzed sample. To test Hypothesis 1, a one-sample *t*-test was conducted to examine whether the average rating for each competency exceeded a predefined threshold value of 3.5. This allowed for the assessment of the perceived importance level of individual project competency elements in the context of project management. To test Hypothesis 2, a paired samples *t*-test was used to determine whether there was a statistically significant difference between the perceived importance of knowledge and practical experience for each specific competency. The level of statistical significance was set at $p < 0.05$, and all results were interpreted in accordance with accepted scientific standards for inferential analysis. This methodological approach enabled a detailed testing of the proposed hypotheses and provided a deeper understanding of the role of both knowledge and experience in the development of project competencies.

RESULTS

The following section presents the results of the descriptive statistics. The tables show the mean values, standard deviations, as well as the minimum and maximum recorded scores for each element of the individual competencies. These indicators provided a basic insight into the general response patterns of the respondents and served as a foundation for further analysis and hypothesis testing.

The research findings indicate that respondents perceive the elements of technical competencies as highly important. All mean values exceed the threshold of 4 on the Likert scale (for both knowledge and experience), clearly pointing to a high level of agreement regarding their importance in the context of project management. At the same time, the low standard deviation values suggest consistency in respondents' assessments, further confirming the stability and reliability of the collected data. These findings strongly support the assumption that technical competency elements are a fundamental component of effective project management within the LRSGU system.

The analysis of the behavioral project competency elements shows that the average rating values are also high, indicating that respondents recognize the importance of these elements in the context of project management. However, compared to technical competencies, a slightly wider range of scores and

Table 2. Descriptive Statistics of Technical, Behavioral, and Contextual Competencies

Tech. comp. el.	M	SD	Min	Max	Beh. comp. el.	M	SD	Min	Max	Con. comp. el.	M	SD	Min	Max
t01_k	4.457	0.546	3.0	5.0	b01_k	4.217	0.696	3.0	5.0	c01_k	4.457	0.657	3.0	5.0
t01_e	4.522	0.623	3.0	5.0	b01_e	4.587	0.58	3.0	5.0	c01_e	4.565	0.655	3.0	5.0
t02_k	4.261	0.773	2.0	5.0	b02_k	4.13	0.718	3.0	5.0	c02_k	4.543	0.546	3.0	5.0
t02_e	4.435	0.655	3.0	5.0	b02_e	4.478	0.586	3.0	5.0	c02_e	4.565	0.655	3.0	5.0
t03_k	4.522	0.547	3.0	5.0	b03_k	3.978	0.931	2.0	5.0	c03_k	4.391	0.682	3.0	5.0
t03_e	4.522	0.586	3.0	5.0	b03_e	4.587	0.617	3.0	5.0	c03_e	4.413	0.652	3.0	5.0
t04_k	4.37	0.61	3.0	5.0	b04_k	3.957	0.893	2.0	5.0	c04_k	4.435	0.75	2.0	5.0
t04_e	4.5	0.624	3.0	5.0	b04_e	4.565	0.655	3.0	5.0	c04_e	4.457	0.78	2.0	5.0
t05_k	4.413	0.686	2.0	5.0	b05_k	3.696	0.866	2.0	5.0	c05_k	4.152	0.894	2.0	5.0
t05_e	4.37	0.679	2.0	5.0	b05_e	4.261	0.828	3.0	5.0	c05_e	4.152	0.894	2.0	5.0
t06_k	4.174	0.643	3.0	5.0	b06_k	3.935	0.929	2.0	5.0	c06_k	4.261	0.801	2.0	5.0
t06_e	4.326	0.732	3.0	5.0	b06_e	4.304	0.785	3.0	5.0	c06_e	4.261	0.801	3.0	5.0
t07_k	4.435	0.688	3.0	5.0	b07_k	4.239	0.874	2.0	5.0	c07_k	4.326	0.79	2.0	5.0
t07_e	4.609	0.614	3.0	5.0	b07_e	4.435	0.75	3.0	5.0	c07_e	4.174	0.851	2.0	5.0
t08_k	4.348	0.604	3.0	5.0	b08_k	4.348	0.766	2.0	5.0	c08_k	4.239	0.705	3.0	5.0
t08_e	4.609	0.577	3.0	5.0	b08_e	4.37	0.679	3.0	5.0	c08_e	4.457	0.585	3.0	5.0
t09_k	4.348	0.64	3.0	5.0	b09_k	4.457	0.721	2.0	5.0	c09_k	4.261	0.773	3.0	5.0
t09_e	4.5	0.587	3.0	5.0	b09_e	4.587	0.686	3.0	5.0	c09_e	4.217	0.728	3.0	5.0
t10_k	4.457	0.585	3.0	5.0	b10_k	4.261	0.713	3.0	5.0	c10_k	4.37	0.771	3.0	5.0
t10_e	4.326	0.732	2.0	5.0	b10_e	4.478	0.752	3.0	5.0	c10_e	4.435	0.655	3.0	5.0
t11_k	4.37	0.572	3.0	5.0	b11_k	4.304	0.695	2.0	5.0	c11_k	4.565	0.62	3.0	5.0
t11_e	4.478	0.586	3.0	5.0	b11_e	4.587	0.686	3.0	5.0	c11_e	4.37	0.771	3.0	5.0
t12_k	4.5	0.624	3.0	5.0	b12_k	4.13	0.806	2.0	5.0					
t12_e	4.478	0.623	3.0	5.0	b12_e	4.587	0.617	3.0	5.0					
t13_k	4.674	0.519	3.0	5.0	b13_k	4.391	0.682	3.0	5.0					
t13_e	4.609	0.649	3.0	5.0	b13_e	4.391	0.774	2.0	5.0					
t14_k	4.565	0.583	3.0	5.0	b14_k	4.196	0.778	3.0	5.0					
t14_e	4.5	0.624	3.0	5.0	b14_e	4.239	0.822	2.0	5.0					
t15_k	4.283	0.655	3.0	5.0	b15_k	4.152	0.788	2.0	5.0					
t15_e	4.457	0.622	3.0	5.0	b15_e	4.239	0.923	1.0	5.0					
t16_k	4.413	0.617	3.0	5.0										
t16_e	4.304	0.695	3.0	5.0										
t17_k	4.457	0.585	3.0	5.0										
t17_e	4.348	0.674	3.0	5.0										
t18_k	4.13	0.859	2.0	5.0										
t18_e	4.348	0.849	2.0	5.0										
t19_k	4.457	0.657	3.0	5.0										
t19_e	4.478	0.691	3.0	5.0										
t20_k	4.413	0.617	3.0	5.0										
t20_e	4.435	0.62	3.0	5.0										

Source: Author's statistical analysis using Stata software (2025)

higher standard deviation values were observed, suggesting more pronounced differences in perceptions of their importance among respondents. These results suggest that behavioral competencies, such as communication skills, collaboration, adaptability, and leadership, are not equally strongly perceived by all study participants. While still acknowledged as a significant element of successful project management, behavioral skills occupy a secondary position compared to technical competencies, which are evaluated with a higher degree of consensus. The observed differences may also reflect varying organizational contexts, respondent roles, or their level of involvement in teamwork and interpersonal project dynamics. The analysis of contextual project competency elements indicates that respondents also attribute a high level of importance to this group. The mean rating values are comparable to those recorded for technical competencies, while low standard deviations point to a strong consensus among respondents. These findings further confirm that all three groups of project competencies, technical, behavioral, and contextual are perceived as essential for effective project management in LRSGUs. Overall, the results clearly show that respondents widely recognize the importance of a comprehensive approach to developing project competencies among LRSGU employees. Nearly all elements of the assessed competencies achieved high mean values, mostly above 4 on a scale from 1 to 5, indicating a strong positive perception of their importance in practice. In addition, the relatively low standard deviation values confirm consistency in responses and uniformity of opinion among respondents. Based on these findings, it can be concluded that local and regional self-government units in the Republic of Croatia, which also refers to those from the Podravina region, clearly recognize the need for well-developed project competencies among their employees. This recognition not only highlights the growing importance of project management professionalization within LRSGUs but also confirms Hypothesis H1, based on the analysis of descriptive indicators.

T-TEST

To test the first hypothesis, which states: “*Local and regional self-government units recognize the high importance of well-developed project competencies among their employees,*” a descriptive statistical analysis was conducted, followed by a one-sample t-test. The goal of this analysis was to examine how strongly respondents perceive project competencies as important. For each individual competency element, respondents rated its importance on a scale from 1 (not important at all) to 5 (extremely important). A critical value of 3.5 was used, representing the midpoint of the scale and defined as the threshold between a neutral attitude and the perception of high importance. In this way, it was tested whether the mean score for each competency was statistically significantly higher than 3.5.

The T-test was conducted for each of the three groups of competencies:

- Technical competencies (t01_k to t20_k)
- Behavioral competencies (b01_k to b15_k)
- Contextual competencies (c01_k to c11_k)

In all cases, the results showed statistically significantly higher values than 3.5 (all p-values < 0.001), indicating that respondents, on average, rated each element of project competencies above the defined significance threshold. Based on the conducted one-sample t-test, it can be concluded that all observed project competency elements received high average importance ratings among LRSGU employees. The results clearly indicate that respondents recognize the importance of well-developed project competencies, thereby confirming Hypothesis 1.

Table 3. One sample T-test

Competencies	k	M	SD	t-value	p-value	Conclusion
Technical	20	4.41	0.59	t = 9.8–15.3	< 0.001	sig. higher than 3.5
Behavioral	15	4.15	0.75	t = 3.5–8.9	< 0.001	sig. higher than 3.5
Contextual	11	4.38	0.71	t = 4.9–12.9	< 0.001	sig. higher than 3.5

Source: Author's statistical analysis using Stata software (2025)

Note: Aggregate values for all elements within each competency group are presented.

PAIRED SAMPLES T-TEST

The objective was to examine whether a significant difference exists between the perceived importance of knowledge and the importance of experience for each element of project competencies. Each participant assessed both knowledge (_k) and experience (_e) for the same element, meaning that two related (paired) measurements were collected per respondent. For this reason, a paired samples t-test was used, a statistical method that compares the average difference between two related sets of measurements. This analysis addresses the question:

Is there a significant difference in the perceived importance of knowledge versus experience for the same competency element? If participants assign higher ratings to experience than to knowledge, and the difference is statistically significant ($p < 0.05$), then Hypothesis 2 is confirmed.

Using a paired samples t-test, the mean ratings of the importance of knowledge (_k) and experience (_e) assigned by respondents to the same competencies were compared. This approach enabled a precise assessment of respondents' perceptions regarding which aspect of a given competency is considered more important in the context of practical application. The obtained results show that, in a large number of cases, experience is rated statistically significantly higher than knowledge. This difference is most pronounced in behavioral competency elements, while to a lesser extent, it is also observed in technical and contextual competency elements. These findings provide empirical support for Hypothesis 2, which posits that within LRSGUs, greater emphasis is placed on practical experience over theoretical knowl-

Table 4. Paired Samples t-Test of Technical Competencie

Tech. comp. el.	M k	M e	Diff.	p	Sig.
t01	4.457	4.522	-0.065	0.5831	No
t02	4.261	4.435	-0.174	0.1976	No
t03	4.522	4.522	0.0	1.0	No
t04	4.37	4.5	-0.13	0.2042	No
t05	4.413	4.37	0.043	0.6877	No
t06	4.174	4.326	-0.152	0.128	No
t07	4.435	4.609	-0.174	0.146	No
t08	4.348	4.609	-0.261	0.0216	Yes
t09	4.348	4.5	-0.152	0.1091	No
t10	4.457	4.326	0.13	0.2245	No
t11	4.37	4.478	-0.109	0.3023	No
t12	4.5	4.478	0.022	0.8214	No
t13	4.674	4.609	0.065	0.5187	No
t14	4.565	4.5	0.065	0.4729	No
t15	4.283	4.457	-0.174	0.0732	No
t16	4.413	4.304	0.109	0.2292	No
t17	4.457	4.348	0.109	0.28	No
t18	4.13	4.348	-0.217	0.0673	Yes
t19	4.457	4.478	-0.022	0.8114	No
t20	4.413	4.435	-0.022	0.7849	No

Source: Author's statistical analysis using Stata software (2025)

Table 5. Paired samples t-test Behavioral Competencie

Beh. comp. el.	M k	M e	Diff.	p	Sig.
b01	4.217	4.587	-0.37	0.0022	Yes
b02	4.13	4.478	-0.348	0.0048	Yes
b03	3.978	4.587	-0.609	0.0002	Yes
b04	3.957	4.565	-0.609	0.0	Yes
b05	3.696	4.261	-0.565	0.0004	Yes
b06	3.935	4.304	-0.37	0.0156	Yes
b07	4.239	4.435	-0.196	0.1622	No
b08	4.348	4.37	-0.022	0.844	No
b09	4.457	4.587	-0.13	0.2042	No
b10	4.261	4.478	-0.217	0.0487	Yes
b11	4.304	4.587	-0.283	0.0141	Yes
b12	4.13	4.587	-0.457	0.0006	Yes
b13	4.391	4.391	0.0	1.0	No
b14	4.196	4.239	-0.043	0.7099	No
b15	4.152	4.239	-0.087	0.4202	No

Source: Author's statistical analysis using Stata software (2025)

edge when it comes to the development and evaluation of employees' project competencies. Notably, the behavioral competency element b04 stands out, where the difference in favor of experience is the greatest (-0.61) and highly statistically significant ($p = 0.0000$). Among technical competencies, a significant difference in the same direction was observed for t08, while within contextual competencies, the same tendency was found for c08. An interesting exception is the contextual competency element c11, where knowledge was rated higher than experience. Although this difference is also statistically significant ($p = 0.0274$), it may indicate the specific nature of this element, which likely requires a higher level of theoretical knowledge and understanding. The results confirm the statistical significance of the higher perceived importance of experience over theoretical knowledge for twelve project competency elements, as shown in Figure 1. Based on the overall analysis, it can be concluded that Hypothesis 2 is partially confirmed.

Table 6. Paired samples t-test Contextual Competencie

Con. comp. el.	M k	M e	Diff.	p	Sig.
c01	4.4565	4.5652	-0.1087	0.2	No
c02	4.5435	4.5652	-0.0217	0.7667	No
c03	4.3913	4.413	-0.0217	0.8214	No
c04	4.4348	4.4565	-0.0217	0.855	No
c05	4.1522	4.1522	0.0	1.0	No
c06	4.2609	4.2609	0.0	1.0	No
c07	4.3261	4.1739	0.1522	0.1463	No
c08	4.2391	4.4565	-0.2174	0.0314	Yes
c09	4.2609	4.2174	0.0435	0.6425	No
c10	4.3696	4.4348	-0.0652	0.4973	No
c11	4.5652	4.3696	0.1957	0.0274	Yes

Source: Author's statistical analysis using Stata software (2025)

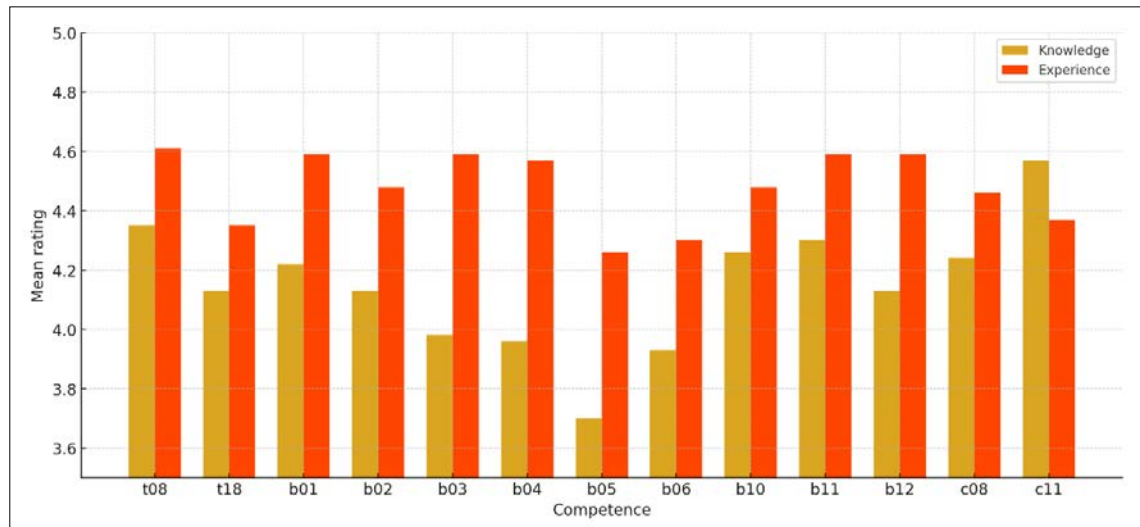


Figure 1. Comparison of Knowledge and Experience Ratings by Project Competency Elements (Statistically Significant Elements Only)

Source: Author's statistical analysis using Stata software (2025)

DISCUSSION

The results of the research conducted indicate a high level of perceived importance for all analyzed competencies in the context of project management within local and regional self-government units (LRSGUs), which also refers to those from the Podravina region. The average values of all items were significantly above the midpoint of the scale, with most exceeding a score of 4, indicating a strong positive attitude among respondents toward all three competency groups (technical, behavioral, and contextual). The first hypothesis was tested using a one-sample t-test, which confirmed that all compe-

tencies were rated statistically significantly higher than the reference value of 3.5. This provides empirical confirmation that all observed competencies are considered important for work within LRSGUs, supporting the notion that project management requires a broad range of knowledge and skills. In the second part of the analysis, the second hypothesis was examined, aiming to determine whether there is a difference in the perceived importance of knowledge and experience. For this purpose, a paired samples t-test was applied, allowing for a direct comparison between knowledge (_k) and experience (_e) ratings for each individual project competency element. The results showed that experience was statistically significantly more valued than knowledge in several cases, particularly among behavioral competency elements, where significant differences in favor of experience were observed in almost all cases. For technical competencies, this difference was identified in one item, and for contextual competencies, statistically significant differences were found in two items. It is important to note that in all cases where significant differences were observed, experience was rated higher, except for one exception (competency c11) where knowledge was rated more highly than experience. This result may reflect the specific nature of that competence, likely requiring a greater degree of theoretical understanding. The findings provide valuable insights into the current perception of the importance of different forms of expertise for project management in LRSGUs. Practical experience, especially in interpersonal and organizational skills, clearly holds a prominent place in how LRSGU employees perceive competency relevance. This may highlight the need for further development of knowledge transfer mechanisms through practice, mentoring, and teamwork, alongside the strengthening of formal education and certification in the field of project management within LRSGUs. In conclusion, the research findings confirm the first hypothesis and partially confirm the second, emphasizing the importance of a comprehensive approach to project competency development, with a clear awareness of the critical role of practical application in the context of local and regional self-government.

CONCLUSION

This research demonstrates that local and regional self-government units (LRSGUs) in the Republic of Croatia, including those from the Podravina region (Varaždin, Međimurje, Koprivnica-Križevci, Virovitica-Podravina, and Osijek-Baranja County) place a high level of importance on project competencies among employees involved in the implementation of development projects. All analyzed competencies received very high average ratings, confirming their relevance and justifying the need for the systematic development of professional knowledge and skills in the field of project management. These results indicate a strong awareness of the importance of a competency-based approach within LRSGUs. In the second part of the analysis, particular attention was given to the comparison between the importance of knowledge and experience. The results of the paired samples t-test showed that, in a significant number of cases, respondents statistically significantly valued experience more than knowledge, especially in the context of behavioral competencies. While differences were somewhat less pronounced in technical and contextual competencies, there were also instances in those areas where experience was given priority. These findings partially confirm the second hypothesis and highlight the recognized value of practical application and hands-on project work over purely theoretical knowledge. The results provide deeper insights into professional priorities and perceptions of competencies within LRSGUs and can serve as a valuable foundation for the further development of education strategies and human resource management policies. Given the increased emphasis on experience, particular attention should be paid to the development of practice-based learning mechanisms, such as mentorship, teamwork, and structured knowledge transfer among colleagues. At the same time, formal education remains important, especially in relation to specific competencies that require a strong theoretical foundation.

For a deeper understanding of this topic, future research could include a larger and more diverse sample, as well as a comparative analysis across multiple countries, particularly those also belonging to the Drava region, such as Slovenia and Hungary. Mixed-methods approach, combining quantitative and qualitative methods, could further enhance the understanding of the reasons behind different perceptions of project competencies. It would also be useful to analyze the correlation between the level of project competencies and the success of implemented projects, as well as to evaluate the impact of

various educational and professional programs on competency development in public administration. Such efforts would further strengthen both the scientific and practical foundation for more effective project management in LRSGUs, and for the development of human resources, who are the key drivers of these processes.

REFERENCES

1. Ahmed, R. & Lodhi, K. M. (2021) 'Do project managers' emotional leadership competencies affect the success of public sector projects in Pakistan?', *International Journal of Information Technology Project Management*, 12(2), pp. 83–98. Available at: <https://ssrn.com/abstract=3884760> (Accessed: 30 July 2025).
2. Association for Project Management (APM) (2023) *APM Competence Framework (3rd edition)*. Princes Risborough: APM. Available at: https://www.apm.org.uk/media/1cflfk3t/apm-competence-framework-3rd-editionfinalrevised.pdf (Accessed: 30 July 2025).
3. Barilović, Z., Leko Šimić, M. & Štimac, H. (2013) Istraživanje kvalitete obrazovne usluge s područja projektnoga menadžmenta. *Ekonomski vjesnik*, 26(2), pp. 371–381.
4. Barilović, Z., Leko Šimić, M. & Štimac, H. (2014) 'Marketing orientation of educational institutions in the field of project management', *Organization, Technology & Management in Construction*, 6(1), pp. 942–948. doi:10.5592/otmcj.2014.1.4.
5. Barilović, Z., Šimac, M. & Kobrehel Preskar, K. (2021) Istraživanje mogućnosti razvoja ponašajnih projektnih kompetencija te pogodnosti za obavljanje tehničkih zadataka kroz tradicionalne, virtualne i hibridne projektne timove. *Društvena i tehnička istraživanja*, 8(1), pp. 77–94.
6. Blaskovics, B., Maró, Z. M., Klimkó, G., Papp-Horváth, V. & Csiszárík-Kocsir, Á. (2023) 'Differences between public-sector and private-sector project management practices in Hungary from a competency point of view', *Sustainability*, 15(14): 11236. doi:10.3390/su151411236. Available at: <https://www.mdpi.com/2071-1050/15/14/11236> (Accessed: 30 July 2025).
7. Car Pušić, D., Marović, I. & Bulatović, G. (2019) 'Agile organizational model for managing local government projects', *Advances in Civil and Architectural Engineering*, 10(18), pp. 12–21. doi:10.13167/2019.18.2.12
8. Dias, T. L., Oliveira, B. S., Carneiro, T. C. J., Moura, R. L. & Lima, S. S. (2023) 'Project manager competencies associated with the projects' success in the public sector', *Revista de Gestão e Projetos (GeP)*, 14(2), pp. 31–54. doi:10.5585/gep.v14i2.23651. Available at: ResearchGate (Accessed: 30 July 2025).
9. Držaić, M. i Šoltić, K. (2025). Komparativni prikaz korištenja sredstava iz EU fondova u javnim institucijama iz četiri županije sjeverozapadne Hrvatske. *Podravina*, 24 (47), 121-133.
10. European Commission (2021) *Study on the development of a European framework for interoperability skills and competences in the public sector (EFISC)*. Available at: chrome-extension://efaidnbmninnbpcjpcgclcfndmkaj/https://ec.europa.eu/isa2/sites/default/files/study_on_the_development_of_a_european_framework_for_interoperability_skills_and_competences_in_the_public_sector_eifisc.pdf (Accessed: 29 July 2025).
11. European Parliament, Policy Department for Structural and Cohesion Policies (2023) *Absorption rates of Cohesion Policy funds: Capacity Building for Better Absorption of EU Funds*. Brussels: European Parliament. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2023/747284/IPOL_STU\(2023\)747284_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2023/747284/IPOL_STU(2023)747284_EN.pdf) (Accessed: 30 July 2025).
12. GAPPS (Global Alliance for the Project Professions) (2007) *A framework for performance based competency standards for global level 1 and 2 project managers (Version 1.1)*. Available at: https://www.projectmanagement.com/content/attachments/Primus1_201011023434.pdf
13. Grčić Fabić, M., Zekić, Z. & Samardžija, L. (2016) 'Implementation of management innovation – a precondition for the development of local government effectiveness: evidence from Croatia', *Administrativna i Management Public*, (27), pp. 7–29.
14. IPMA (International Project Management Association) (2015) *Individual Competence Baseline for Project Management*. Zürich: IPMA. Available at: <https://ipma.hr/capm/2022/02/Individual-Competence-Baseline-for-Project-Management.pdf> (Accessed: 30 July 2025).
15. Irfan, M., Khan, S. Z., Hassan, N., Hassan, M., Habib, M., Khan, S. & Khan, H. H. (2021) 'Role of project planning and project manager competencies on public sector project success', *Sustainability*, 13(3): 1421. doi:10.3390/su13031421
16. Krpan, L., Cvitković, I., Klečina, A. & Pupavac, D. (2023) 'Project Management Methodology in Regional Self Government Units', *Systems*, 11(3): 143. doi:10.3390/systems11030143

17. Ministarstvo pravosuđa i uprave (2025) *Popis županija, gradova i općina*. Available at: <https://mpudt.gov.hr/ominstarstvu/ustrojstvo/uprava-za-politicki-sustav-i-opcu-upravu/lokalna-i-podrucna-regionalna-samouprava/popis-zupanija-gradova-i-opcina/22319> (Accessed: 30 July 2025).
18. Mrvica Mađarac, S., Ivanković, D. i Vинојčić, M. (2024). Stavovi korisnika financijskih sredstava iz EU fondova prema postupku apliciranja u Osječko-baranjskoj i Vukovarsko-srijemskoj županiji. *Podravina*, 23 (46), 165-173.
19. OECD (2021) *Public Employment and Management 2021: The Future of the Public Service*. Paris: OECD Publishing. doi:10.1787/938f0d65-en. Available at: https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/12/public-employment-and-management-2021_6a1fc237/938f0d65-en.pdf (Accessed: 29 July 2025).
20. PMI (Project Management Institute) (2021) *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – 7th Edition*. Newtown Square, PA: Project Management Institute.
21. PMI (Project Management Institute) (n.d.) *PMI Talent Triangle®*. Available at: <https://www.pmi.org/certifications/certification-resources/maintain/talent-triangle> (Accessed: 30 July 2025).
22. Turner, J. R. & Müller, R. (2005) 'The Project Manager's Leadership Style as a Success Factor on Projects: A Literature Review', *Project Management Journal*, 36(2), pp. 49–61. doi:10.1177/875697280503600206
23. Vukašina, M. (2025) *Europski labirint. EU fondovi i regionalni razvoj Republike Hrvatske*. Zagreb: Plejada d.o.o.
24. World Bank (2022) *Spajanje i povezivanje općina: Međunarodna iskustva i mogućnosti reforme za Hrvatsku*. Available at: <https://documents1.worldbank.org/curated/en/099061423145030508/pdf/P175259-b0e14f9c-0179-495f-b6b2-c4f8357171bf.pdf> (Accessed: 30 July 2025).

SAŽETAK

Ovo istraživanje ispituje percepciju važnosti projektnih kompetencija među zaposlenicima u jedinicama lokalne i regionalne samouprave (JLRS), s posebnim naglaskom na razliku između praktičnog iskustva i teorijskog znanja u okviru tehničkih, kontekstualnih i bihevioralnih projektnih kompetencija. S obzirom na sve veću potrebu za učinkovitim upravljanjem razvojnim projektima, osobito onima financiranim iz fondova Europske unije, cilj istraživanja je popuniti prazninu u znanju o tome kako JLRS vrednuju projektne kompetencije svojih zaposlenika. Teorijski okvir temelji se na suvremenim modelima i standardima projektnih kompetencija, u skladu s relevantnom znanstvenom i stručnom literaturom, kao i smjernicama vodećih globalnih organizacija u području upravljanja projektima, koji projektne kompetencije općenito svrstavaju u tri glavne kategorije. Uz sekundarno istraživanje, provedeno je i primarno kvantitativno istraživanje korištenjem standardiziranog anketnog upitnika na uzorku zaposlenika iz različitih JLRS, uključujući i relevantne organizacije iz podravske regije, konkretno iz županija Varaždinske, Međimurske, Koprivničko-križevačke, Virovitičko-podravske i Osječko-baranjske. Podaci su analizirani deskriptivnim i inferencijalnim statističkim metodama. Nalazi ukazuju na to da JLRS prepoznaju visoku važnost projektnih kompetencija svojih zaposlenika, pri čemu općenito pridaju veću važnost praktičnom iskustvu nego formalnom znanju. Rezultati mogu doprinijeti razvoju učinkovitijih politika upravljanja ljudskim resursima i obrazovnih politika u javnoj upravi, kao i jačanju strategija razvoja ljudskog kapitala na lokalnoj i regionalnoj razini. Nadalje, istraživanje pruža osnovu za formuliranje preporuka usmjerenih na unaprjeđenje institucionalnih kapaciteta JLRS za provedbu razvojnih projekata u Hrvatskoj, uključujući i podravsku regiju, te istovremeno nudi smjernice relevantne za širi regionalni kontekst zemalja u području rijeke Drave, poput Mađarske i Slovenije.